MOTILITY INDOLE UREA (MIU) MEDIUM

A semi-solid differential medium for the differentiation of bacteria on the basis of their motility, indole production and urease activity.

Dehydrated media	
Code number:	500 g: MIU20500, 5 kg: MIU25000
Packaging of 500 g:	380 g medium base + 120 g urea
Packaging of 5 kg:	3,8 kg medium base + 1,2 kg urea
Appearance of agar base:	Pinkish, homogeneous hygroscopic powder
Appearance of urea:	White pellet
pH before autoclaving (25 °C):	6,4 – 6,6
pH after autoclaving (25 °C):	6,6 – 7,0

Direction: Suspend **32 g medium base** and **10 g urea** in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 115 °C for 15 minutes. Cool quickly!

Warning!
The medium is heat sensitive.
No further sterilisation is necessary or desirable.

Prepared media	
Bottled media:	100 ml: MIU30100, 500 ml: MIU30500
Tubed media:	100 x 12 mm: MIU40003 (3 ml)
	100 x 15 mm: MIU40005 (5 ml)
Colour:	Pinkish
pH (25 °C):	6,6 – 7,0

Direction: Dispense the melted bottled media aseptically into test tubes. Media in tubes are ready to use.

FORMULA FOR COMPLETE MEDIUM in g/l

Peptones	11,000
Sodium chloride	5,000
Urea	20,000
Phenol red	0,012
Buffers	3,000
Agar	3,000

Note: The typical formula can be adjusted to obtain optimal performance.

Storage conditions: Store the dehydrated media and the urea tightly closed in a dry place at room temperature. Store the bottled and tubed media protected from light at room temperature. Use before the expiry date on the label.

Quality control:

Test strains	Incubation temp: 37 °C	**Reactions**		Incubation time: 24 h
		Urea	**Motility**	**Indole**
Proteus mirabilis ATCC 29906		+ (red)	+	-
Escherichia coli ATCC 25922		- (yellow)	+	+
Shigella sonnei ATCC 25931		- (yellow)	-	-

References: Roland et al. (1947) Ann. Inst. Pasteur 73: 914.
Christensen (1946) J. Bact. 52: 461.

In vitro diagnostic – for professional use only!